AGN, QSO and jets

THE FIRST FEW PARSECS OF THE JETS IN NGC 4261

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We have imaged the nucleus of the nearby radio galaxy NGC 4261 (3C270) with the VLBA at 1.6, 8.4, 22, and 43 GHz. At 8.4 GHz and higher frequencies our images reveal a narrow gap in emission just east of the core, which we interpret as absorption by an inner accretion disk seen nearly edge-on. If correct, this interpretation implies that the radio jets are almost perpendicular to our line of sight. Thus, NGC 4261 provides an unusually good opportunity to measure component proper motions in both jet and counterjet, free from most relativistic beaming effects. Observations to do this have been proposed. This is one of the very few sources in which both jet and counterjet are detectable on parsec scales, and it is also one of the closest "classical" double-lobed radio galaxies. Consequently, NGC 4261 is a good laboratory for testing models of jets in low luminosity radio galaxies.